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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/784,093

02/20/2004

Wounjhang Park

226251

6898

23460

7590

06/11/2007

LEYDIG VOIT & MAYER, LTD  
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EXAMINER

LE, HOA T

ART UNIT

PAPER NUMBER

1773

MAIL DATE

DELIVERY MODE

06/11/2007

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

# Office Action Summary

Application No.

10/784,093

Applicant(s)

PARK ET AL.

Examiner

H. T. Le

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 25 April 2007.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-7 and 37-39 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-7 and 37-39 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date Jan. & April 2007.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_.

### DETAILED ACTION

1. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

#### *Double Patenting*

2. **Claims 1-7 and 36-39 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 15-28 of U.S. Patent No. 6,699,523.** Although the conflicting claims are not identical, they are not patentably distinct from each other because the instant claims and the patent claims are directed to the same product having the same structure and properties. The only difference is the wordings. The patent claims recite process limitations while the instant claims recite product limitations. However, the process limitations of the patent claims would necessarily result in a product having product limitations as recited in instant claims.

2.1. Upon reviewing of the application history, the double patenting rejection based on the parent application 10/784,093, as set forth in the office action mailed November 29, 2005, is hereby reinstated. In response to the rejection, Applicant argued that the present claims had been withdrawn from the parent application as directed to a non-elected invention. The argument would have been valid if the withdrawal of the present claims was a result of the restriction requirement imposed by the Office. However, the withdrawal was voluntary to avoid the prior art rejection, and there had been no restriction made. Therefore, the double patenting was proper, and is therefore, hereby reinstated.

***Response to Arguments***

**3. Claims 1, 7, and 37-39 are rejected under 35 U.S.C. 102(b) as being anticipated by Ronda et al (US 6,150,757).**

4. Applicant argued that: "The claims of the present application recite surface coated phosphors configured as a coating in a display device. Rhonda [sic] neither explicitly nor inherently discloses such a coating. Rather, Rhonda's phosphors are specifically configured for a mercury vapor lamp. Accordingly, Rhonda cannot anticipate the claims of the present invention and the rejection should be withdrawn. "

4.1. The recitation "configured as a coating in a display device" has not been given patentable weight. It has been held that a claim language is not given patentable weight where it merely recites the intended use of a structure, and where the body of the claim does not depend on such recitation for completeness but, instead, the structural limitations are able to stand alone. See In re Hirao, 535 F.2d 67, 190 USPQ 15 (CCPA 1976) and Kropa v. Robie, 187 F.2d 150, 152, 88 USPQ 478, 481 (CCPA 1951). Here, the structural limitations of the claimed surface coated phosphor are able to stand alone and do not depend on the use of the coated phosphor for completeness. Therefore, such recitation "configured as a coating in a display device" is not given patentable weight. Therefore, the rejection based on the Ronda patent is still proper and hereby maintained.

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**5. Claims 2-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ronda et al (US 6,150,757) as applied to claims 1-7 and 37-39 above, and further in view of the discussion below.**

5.1. Applicant argued that: "One of skill in the art would not substitute a sulfide phosphor, e.g., ZnS:Cu, for the BAM phosphor in Rhonda, because to do so would undermine the operability and express goal of Rhonda." To support this, Applicant cited Ronda at col. 1, lines 50-53 where it is stated, "The invention has for its object to provide a method of coating a luminescent material with a metal oxide which leads to a product which has a *comparatively low mercury absorption* when used in a low-pressure discharge lamp." From this reading, Applicant mistakenly concluded that Ronda chose BAM phosphor because it facilitates "low mercury absorption" and that "any alteration in Rhonda that could possibly increase mercury absorption would be contrary to the teachings of Rhonda[sic]..."

5.2. Contrary to Applicant's interpretation of Ronda's teaching, Ronda purposefully chose BAM, not because of its low mercury absorption, but because of its high mercury absorption, in order to show the significance in reduction in mercury absorption once the BAM phosphor is coated with a rare-earth oxide. See Ronda, col. 3, lines 4-12, where it states: "BAM shows a comparatively high mercury absorption in low pressure discharge lamp ... It was found that the quality deterioration ... of such lamp may be considerably reduced in that from among the luminescent material forming part of the luminescent layer exclusively BAM is coated with a metal oxide layer." (emphasis added).

Therefore, substituting BAM phosphor with a ZnS:Cu type phosphor would not

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"undermine the operability and express goal of Rhonda" as mistakenly concluded by Applicant. In fact, it's known in the art that BAM phosphor and ZnS:Cu phosphor are extensively used in low pressure mercury discharge lamp. See, as cited in the last office action, US 6,888,302 to Juestel et al, col. 2, lines 16-26 where BAM and ZnS:Cu are listed as preferred phosphor in low pressure mercury discharge lamp. Therefore, one having ordinary skill in the art would have found it obvious to substitute BAM with ZnS:Cu type phosphor or vice versa.

5.3. Applicant further argued that "Rhonda's BAM phosphor is a UV lamp excited phosphor whereas ZnS would not be used in this way." This argument is completely contrary to what is known and taught in the art. BAM phosphor and ZnS:Cu phosphor are both considered "preferred UV-A phosphor" for low pressure mercury discharge lamp. See US 6,888,302 to Juestel et al, col. 2, lines 16-26.

6. Applicant's arguments filed March 22, 2007 have been fully considered but they are not persuasive for reasons set forth in sections 4 and 5 above.

#### **Prior Art**

7. The Rejection from the Korean Intellectual Property Office (filed Jan. 2007) is noted. The rejection is based on a paper by the same inventive entity of the present application and published on 2000 which is later than the filing date of the application 09/469,608, which is a parent application of the present application.

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8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to H. T. Le whose telephone number is 571-272-1511.

The examiner can normally be reached on 10:00 a.m. to 6:30 p.m., Mondays to Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Carol Chaney can be reached on 571-272-1284. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/H. Thi Le/  
H. (Holly) T. Le  
Primary Examiner  
Art Unit 1773

June 3, 2007